AMENDMENTS TO THE DRAWINGS:

The Examiner has objected to the drawings because in figure 1 it is not clear how the output of elements 16 and 17 are connected to element 28. Amended figure 1 has arrows that indicate how the output of elements 16 and 17 are connected to element 28.

The Examiner has objected to figure 1 because the connection of element 21 is not shown as it previously was in the as-filed figures. The connection between element 20 and 21 shown in the as-filed figures has been added to the amended figure 1.

The Examiner has objected to the drawings because the drawings fail to show all the connections (arrows/path directions) as described in the specification. Amended figure 1 includes additional arrows to show path directions described in the specification.

For the reasons stated above, applicants request removal of the objections to the drawings which have been corrected in compliance with 37 CFR 1.121(d). A replacement sheet for amended figure 1 has been attached to this amendment.

REMARKS

Applicants respectfully request reconsideration of the present application.

At the time the Examiner mailed the Office Action on January 17, 2007 claims 1-30 were pending. Claim 1-30 have been rejected.

By way of the present response the applicants have amended claims 1, 13, 14, and 16. Claims 7 and 12 have been canceled. No new matter has been added.

Applicants reserve all rights with respect to the applicability of the doctrine of equivalents.

Claims 13, 14, and 16 have been amended to depend on claim 11 rather than claim 12 because claim 12 has been canceled.

The Examiner has rejected claims 1-30 under 35 U.S.C. § 101 because claims 1-30 lack a practical application that produces a useful, tangible, and concrete result whereas the claims are solely in manipulating a signal.

Independent claim 1, as amended, is directed to a digital receiver. In some embodiments, the digital receiver is intended for digital terrestrial television, digital audio broadcast signals, digital satellite broadcast signals and the like. Amended claim 1 includes the limitation "a controller for adjusting a passband of said low pass filtering arrangement such that said first and second values have a predetermined relationship, wherein the demodulator outputs a channel signal within the passband of said low pass filtering arrangement." The

passband of the low pass filtering arrangement is adjusted by the controller such that the first and second values have a predetermined relationship. The digital receiver produces a useful, tangible, and concrete result by having a demodulator that outputs a channel signal within the adjusted passband of said low pass filtering arrangement. Accordingly, applicants respectfully request withdrawal of the rejection of amended claim 1 and associated dependent claims 2-6, 8-11, and 13-30 under 35 U.S.C. § 101.

Claims 1-4, 7, 21-23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Cowley et al., U.S. Publication No. 2002/0075971 (hereinafter "Cowley"); in view of Kurisu, U.S. Patent No. 6,172,543 (hereinafter "Kurisu").

Amended claim 1 reads as follows.

> A digital receiver comprising:
> a tuner for converting a selected channel to a baseband channel signal;
> an adjustable low pass filtering arrangement for filtering said baseband signal;
> a demodulator including a first measuring arrangement for measuring a first value as a first function of a signal level of at least one first baseband signal component of said baseband signal whose frequency is adjacent an edge of said baseband channel and for measuring a second value as a second function of a signal level of at least one second baseband signal component of said baseband signal whose frequency is further from said edge of said baseband channel than a frequency of said at least one first baseband signal component, wherein said first value is measured as an average of levels of a first plurality of carriers whose frequencies are adjacent said edge of said baseband channel; and
> a controller for adjusting a passband of said low pass filtering arrangement such that said first and second values have a predetermined relationship, wherein the demodulator outputs a channel signal within the passband of said low pass filtering arrangement.

Cowley discloses a digital tuner having an input tuning range with lower and upper limit frequencies. An up converter converts an input signal to an intermediate frequency signal whose frequency is higher than the upper frequency limit of the input range. A downconverter is a zero intermediate frequency quadrature converter which converts the intermediate frequency signal to in-phase and quadrature baseband signals. The upconverter has a local oscillator fundamental frequency which is greater than the upper frequency limit of the input tuning range. (Cowley, Abstract).

Applicants agree with the Examiner regarding Cowley not being specific or disclosing measuring a first value as a first function of a signal level and measuring a second value as a second function of a signal level; and also said first and second values having a predetermined relationship. (Office Action, 01/17/07, pages 4 and 5). Furthermore, Cowley does not disclose or suggest the limitation "wherein said first value is measured as an average of levels of a first plurality of carriers whose frequencies are adjacent said edge of said baseband channel" as recited in amended claim 1.

Therefore, Cowley does not disclose or suggest the limitations stated in amended claim 1.

Adding the teachings of Kurisu to Cowley fails to cure Cowley's deficiencies. Kurisu discloses 90 degree phase shift circuit receives an input signal to generate a Q-signal and an I-signal having a phase difference of 90.degree. therebetween. The 90 degree phase shift circuit has a CR-type high-pass filter having a variable capacitor and fixed resistor, a CR-type low-pass filter

having a variable capacitor and a fixed resistor, and a level comparator for comparing the amplitudes of both the outputs from the filters to feed-back a control signal for controlling the cut-off frequencies of both the filters. (Cowley, Abstract).

By contrast, Kurisu does not disclose or suggest a demodulator including a first measuring arrangement for measuring a first value as a first function of a signal level of at least one first baseband signal component of said baseband signal whose frequency is adjacent an edge of said baseband channel because Kurisu is silent regarding a frequency of the first measured value being adjacent an edge of said baseband channel. Kurisu does not disclose the limitation "wherein said first value is measured as an average of levels of a first plurality of carriers whose frequencies are adjacent said edge of said baseband channel" as recited in amended claim 1.

Therefore, Kurisu does not disclose or suggest the limitations stated in claim 1.

It is respectfully submitted that Cowley does not suggest a combination with Kurisu, and Kurisu does not suggest a combination with Cowley because Cowley teaches away from such a combination. Cowley discloses a baseband processor with a low pass filter for both the in phase I-signal and the quadrature Q-signal while Kurisu discloses a low pass filter for the in phase I-signal and a high pass filter for the quadrature Q-signal. It would be impermissible hindsight to combine Cowley with Kurisu based on applicants' own disclosure.

Furthermore, even if Cowley and Kurisu were combined, such a combination would lack the limitation "wherein said first value is measured as an average of levels of a first plurality of carriers whose frequencies are adjacent said edge of said baseband channel" as recited in amended claim 1.

Therefore, in view of the above distinction, neither Cowley nor Kurisu, individually or in combination, disclose each and every limitation of claim 1. As such, claim 1, as amended, is not rendered obvious by Cowley in view of Kurisu under 35 U.S.C. § 103(a).

It is submitted that dependent claims 2-4 and 21-23 are not rendered obvious by Cowley in view of Kurisu under 35 U.S.C. § 103(a) given that claims 2-4 and 21-23 depend from and include the limitations of independent claim 1.

Claims 5-6 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Cowley, in view of Kurisu, in further view of U.S. Patent No. 5,715,281 of Bly (hereinafter "Bly").

Claims 5 and 6 depend from and include the limitations of independent claim 1 noted above. It is submitted that Bly fails to cure the deficiencies of Cowley and Kurisu noted above with respect to claim 1 and, therefore, claims 5 and 6 are patentable over the combination of cited references.

Claims 8-11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Cowley, in view of Kurisu, in further view of Husted, U.S. Publication No. 2003/0206603 (hereinafter "Husted").

Claims 8-11 depend from and include the limitations of independent claim 1 noted above. It is submitted that Husted fails to cure the deficiencies

of Cowley and Kurisu noted above with respect to claim 1 and, therefore, claims 8-11 are patentable over the combination of cited references.

Claims 12, 14-15, 16-20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Cowley, in view of Kurisu, in view of Husted, in further view of Katayama, U.S. Patent No. 6,356,746 (hereinafter "Katayama").

Claims 14, 15, 16-20 depend from and include the limitations of independent claim 1 noted above. It is submitted that Katayama fails to cure the deficiencies of Cowley, Kurisu, and Husted noted above with respect to claim 1 and, therefore, claims 14, 15, 16-20 are patentable over the combination of cited references.

Katayama discloses that signal levels of received signals are detected within a plurality of different frequency bands by a first electric field strength detecting means 15 and a second electric field strength detecting means 16. Then it is detected by an adjacent wave detecting means 17 based on this output signal whether or not adjacent waves are contained. Then a filter controlling signal 19 is output to a first I low-pass filter 9a and a first Q low-pass filter 10a from a baseband filter controlling means 18 according to whether or not the adjacent waves are contained. Thus, low-frequency cut-off frequencies of the first I low-pass filter 9a and a first Q low-pass filter 10a are switched and controlled. (Katayama, Abstract). Katayama also discloses the following:

> FIG. 3 shows the first example of the electric field strength detecting means. The first electric field strength detecting means 15 comprises

> an amplifier 30, a detector/rectifier 31, and a low-pass filter 33. In this configuration, the output signal of the first I low-pass filter 9a or the first Q low-pass filter 10a is amplified by the amplifier 30. Then, a signal output supplied from the amplifier 30 is detected and rectified by the detector/rectifier 31. Lastly, an output signal of the detector/rectifier 31 is integrated (averaged) by the low-pass filter 33 to get a direct current component of the output signal. This direct current component represents an average power in the passband of the first I low-pass filter 9a or the first Q low-pass filter 10a, and is output to the adjacent wave detecting means 17. FIG. 4 shows the operational waveform in such first example of the electric field strength detecting means. In FIG. 4, an output waveform of the signal amplified by the amplifier 30 and an output signal of the detector/rectifier 31 are shown as an amplifier output and an detector/rectifier output respectively. (Katayama, col. 9, line 65 to col. 10, line16).

By contrast, Katayama does not disclose or suggest a demodulator including a first measuring arrangement for measuring a first value as a first function of a signal level of at least one first baseband signal component of said baseband signal whose frequency is adjacent an edge of said baseband channel because Katayama is silent regarding a frequency of the first measured value being adjacent an edge of said baseband channel. Katayama does not disclose the limitation "wherein said first value is measured as an average of levels of a first plurality of carriers whose frequencies are adjacent said edge of said baseband channel" as recited in amended claim 1.

Therefore, Katayama does not disclose or suggest the limitations stated in claim 1.

Furthermore, even if Cowley, Kurisu, Husted and Katayama were combined, such a combination would lack the limitation "wherein said first value is measured as an average of levels of a first plurality of carriers whose

frequencies are adjacent said edge of said baseband channel" as recited in amended claim 1.

Therefore, in view of the above distinction, neither Cowley nor Kurisu nor Husted nor Katayama, individually or in combination, disclose each and every limitation of claim 1. As such, claim 1, as amended, is not rendered obvious by Cowley in view of Kurisu in further view of Husted in further view of Katayama under 35 U.S.C. § 103(a).

It is submitted that dependent claims 14, 15 and 16-20 are not rendered obvious by Cowley in view of Kurisu in further view of Husted in further view of Katayama under 35 U.S.C. § 103(a) given that claims 14, 15 and 16-20 depend from and include the limitations of independent claim 1.

Claim 24 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Cowley, in view of Kurisu, in further view of Katayama.

Claim 24 depends from and include the limitations of independent claim 1 noted above. As previously discussed, it is submitted that Katayama fails to cure the deficiencies of Cowley and Kurisu noted above with respect to claim 1 and, therefore, claim 24 is patentable over the combination of cited references.

Claims 25-28 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Cowley, in view of Kurisu, in view of Katayama, in further view of Husted. As previously discussed, it is submitted that Katayama and Husted fail to cure the deficiencies of Cowley and Kurisu noted above with

respect to claim 1 and, therefore, claims 25-28 are patentable over the combination of cited references.

CONCLUSION

Applicants respectfully submit that all the rejections and objections have been overcome.

If there are any additional charges, please charge them to our Deposit Account Number 02-2666.

Respectfully Submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

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Jeremy Schweigert
Reg. No. 56,244

12400 Wilshire Boulevard
Seventh Floor
Los Angeles, CA 90025-1026
(408) 720-8300